

COMMITTEE ON RESOURCES  
Subcommittee on Water and Power

“The Immediate Federal and State Role in  
Addressing Waste Deliveries for California  
and the Impacts in California Communities”

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Testimony by  
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**I. Introduction**

Thank you Chairwoman Grace Napolitano and members of the Subcommittee for Water and Power for the opportunity to testify before today regarding the water problems facing California. I am the General Manager of the Inland Empire Utilities Agency. The Subcommittee has asked four important questions related to how address the critical water problems from Judge Wanger’s court decision and how we develop regional and statewide strategies with the federal government to meet the challenges of having less water available from the Delta and the related issues with developing a sustainable ecosystem. The Inland Empire Utilities Agency in partnership with many other agencies in southern California and with financial assistance from the State of California and the Bureau of Reclamation is implementing a “Drought Proofing Strategy” that is a key element of a Delta Plan. We have recognized the challenges for a long time of meeting the statewide water needs in an environmentally responsible manner have committed over \$500 million over the past seven years to implement projects that will develop new local supplies in southern California and reduce our need for Delta exports.

**A. Inland Empire Utilities Agency/Chino Groundwater Basin**

The Inland Empire Utilities Agency, a municipal water district under California law, was formed in 1950 by a popular vote of its residents. The service area of the Agency is entirely in San Bernardino County and has a current population of approximately 800,000. The IEUA service area is rapidly growing and will probably increase by 50 percent to 1.2 million within the next 20 years. The Chino Groundwater Basin was adjudicated in 1978 and is governed by a 9 member Watermaster Board. Overall water use is about 350,000 acre-feet annually, 70 percent of the supplies are from local sources within the Santa Ana Watershed. With the rapid growth, demand from MWD could increase from 70,000 acre-feet per year currently to 150,000 acre-feet in 2020 if we did business as usual! However IEUA, Chino

Basin Watermaster and in cooperation with many other agencies have developed a “Drought Proof Plan” that will develop over 100,000 acre-feet of new local supplies to minimize the need for additional imported water from MWD, thereby reduce our need for more Delta (SWP) water supplies.

### **B. History, Background and Interagency Relationships with CALFED Bay-Delta Program**

The Agency has been a member agency of the Metropolitan Water District since 1950 and distributes about 70,000 acre-feet of imported water to the cities of Chino, Chino Hills, Fontana (through the Fontana Water Company), Ontario, Upland, Montclair, Rancho Cucamonga (through the Cucamonga County Water District), and the Monte Vista Water District. The Agency also provides wastewater treatment service (four regional water recycling plants that produce about 60 million gallons per day or 67,000 acre-feet per year). Excess recycled water flows downstream into the Santa Ana River where the Orange County Water District recharges that water into the Orange County groundwater basin for drinking water.

The Agency is also a member of the Santa Ana Watershed Project Authority (SAWPA) and is an active member of the Santa Ana River Watershed Group and the Chino Basin Watermaster. As a member agency of SAWPA, the Agency’s water projects are closely coordinated with the SAWPA watershed wide planning and the funding of priority projects through the Water Bond Proposition 13 and Proposition 50 grants.

### **Public and Private Partnerships to Improve the Santa Ana Watershed**

- Santa Ana Watershed Project Authority (SAWPA) has maintained an inclusive dialogue with all interested parties and is leading the update of the Santa Ana integrated regional watershed management plan through the “One Water-One Watershed” (OWOW) process;
- All local governments within the three counties (San Bernardino, Riverside and Orange) are working cooperatively together to manage growth and plan for the water/wastewater infrastructure needed to meet the needs of this rapidly urbanizing watershed;
- Partnerships with industry including dairies, manufacturing, and developers have resulted in creative solutions to local water quality problems (e.g. the Santa Ana brine sewer to the ocean) as well as producing new sources of renewable, cost effective energy;
- Industrial customers throughout the area are planning on using recycled water to reduce costs, ensure reliability, and to be excellent environmental stewards.

The Chino groundwater basin is one of the largest in Southern California. The Chino Basin Watermaster adopted an Optimum Basin Management Plan (OBMP) to protect the water

quality of the basin and to manage the local supplies effectively to the maximum benefit of the local ratepayers. A key element is the expansion of the conjunctive use operation of the Chino Basin to expand the storage and recovery by approximately 300,000 to 500,000 acre feet.

Other key components are the Inland Empire Utilities Agency regional water recycling project to develop new local supply of 100,000 acre-feet per year and the Chino Basin desalters that would develop an additional new local supply of 40,000 acre-feet per year.

The key benefits of the Chino Basin regional “OBMP” water plan are as follows:

### **Benefits**

- *Provide a more dependable local water supply and reduce the likelihood of water rationing during future droughts and the impacts of climate change;*
- *Economic benefits of reliable water supply to industry and provide incentives to attract new industry and jobs in the Inland Empire region;*
- *Environmental protection – reduce wastewater discharges into Santa Ana River by 50 percent through local water recycling and protect Orange County drinking water supplies through implementation of comprehensive lower Chino Dairy area manure management strategy;*
- *Reduce imported water use in the rapidly growing Inland Empire region (upper Santa Ana River Watershed) and thereby contribute in a significant manner to the statewide CALFED Bay-Delta and Colorado River solutions through more efficient use of existing local supplies;*
- *Assist in solving multiple Endangered Species Act problems within the Santa Ana Watershed, the CALFED Bay-Delta program, and the Colorado River/Salton Sea;*
- *Implement a sustainable long-term water resources management program that maintains the salt balance of the Santa Ana River watershed;*
- *Reduce the energy intensity of the region’s water supplies, helping to conserve energy and reduce greenhouse gas emissions that are contributing to climate change.*

## **II Chino Basin “Drought Proofing Strategy”**

The IEUA Urban Water Management Plan, adopted in December 2005 and the Chino Basin Watermaster Optimum Basin Management Plan, document the overall strategy for improving the water supply reliability in the Chino Basin area.

- ✓ Water Conservation – 10% savings 35,000 AF
- ✓ Water Recycling – 100,000 AF
- ✓ Local Groundwater Storage and Conjunctive Use – 500,000 AF of new storage
- ✓ Chino Desalter 40,000 AF

- ✓ Stormwater – 25,000 acre-feet of new supplies
- ✓ Renewable Energy and Organics Recycling – Clean energy through biodigesters (using biosolids, dairy manure and food waste), solar power and wind power (goal of 15 megawatts)
- ✓ Water Quality Management – Establishment of Chino Creek Wetlands and Educational Park at IEUA and a continued partnership with Orange County Water District on Prado Wetlands implementation of the Chino Creek Integrated Watershed Plan.

**A. Water Conservation- (35,000 acre-feet per year, 10 percent of overall use)**

IEUA and its retail utilities are committed to implementing the Memorandum of Understanding (MOU) regarding Urban Water Conservation in California. IEUA is an active member of the California Urban Water Conservation Council (CUWCC). Currently, the Agency is expanding its conservation efforts to promote both water and *energy* conservation programs to our customers. IEUA’s goal is to reduce water demands by 10 percent (35,000 acre-feet per year) through aggressive implementation of customer conservation programs. Innovative programs initiated by IEUA include the Inland Empire Landscape Alliance, in which elected officials from cities and water agencies within IEUA’s service area are working to promote outdoor conservation including turf reduction rebates, use of California-friendly native plants and new regional model landscape ordinances that will promote water savings. Other programs include conservation rebates which are offered in partnership with the Metropolitan Water District of Southern California (ultra-low-flow toilets, weather-based irrigation controllers, synthetic turf, efficient sprinklers, water brooms X-Ray recirculation units and other water saving devices), landscape audits, and school education programs including the award-winning Garden In Every School program.

**B. Water Recycling (50,000 acre-feet by 2010)**

IEUA owns and operates four water recycling plants that produce high quality water that meets all state and federal requirements for non-potable landscape irrigation, industrial uses, and groundwater replenishment. Since 2000 the Agency has spent over \$60 million expanding its recycled water distribution system and currently recycles about 15,000 acre-feet annually. Recently the IEUA Board approved an accelerated implementation plan to increase annual recycled water use to approximately 50,000 acre-feet within the next 3 years by constructing “purple” recycled water pipeline system to hookup existing large customers (schools, golf courses, city parks, groundwater recharge). IEUA’s Board has approved a \$140 million budget to expedite the construction of recycled water pipeline distribution system. The accelerated implementation plan was developed through a collaborative process with local cities, water districts, Chino Basin Watermaster and other stakeholders and represents a comprehensive evaluation of the infrastructure needed to maximize recycled water use in the region. In addition, IEUA and local cities have coordinated with developers to incorporate dual “purple” piping into new urban developments to maximize recycled water use for non-potable purposes.

The energy demands to produce and deliver recycled water are less than one third of the energy required to deliver water through the State Water Project. Additional energy savings are included in the plan by building new smaller water recycling plants in the northern part of our service area to provide recycled water to communities (Upland, Fontana, and Rancho Cucamonga) without the need to pump the water to them. The Cucamonga County Water District (CCWD) proposed satellite plant authorized by HR 2919 would be the prototype water recycling plant to reduce energy use of pumping recycled water to the higher elevations along the San Gabriel Mountains.

Approximately 25% of the recycled water will be used for groundwater replenishment within the Chino Groundwater basin to augment the potable water supply. IEUA and Chino Basin Watermaster recently got court approval to expand the artificial recharge of the Chino Basin Groundwater Basin. The plan is to blend recycled water with stormwater and imported water in a coordinated fashion with flood control district to ensure that all water sources are conserved in an optimal manner (targeted goal is an additional recharge of 80,000 acre-feet per year).

**C. Local Groundwater Storage and Conjunctive Use (500,000 acre-feet of new storage)**

The Chino Basin Watermaster is implementing an Optimum Basin Management Plan to enhance the conjunctive use storage of the Chino Basin. Today MWD has stored over 80,000 AF in the Basin and has funded \$1.5 million in engineer feasibility studies to expand the storage to 150,000 AF. The Optimum Basin Management Program developed over the past two years by the Chino Basin Watermaster would implement a comprehensive water resources management strategy to drought proof the area and enhance the yield of the groundwater basin. The Chino Basin Watermaster has developed a conjunctive use program to store 300,000 – 500,000 acre-feet of imported water in wet years for drought year withdrawal for local, regional and statewide availability. In June, 2003 IEUA, Chino Basin Watermaster, Three Valleys MWD, Western MWD and the Metropolitan Water District executed an agreement for the initial 100,000 acre-feet of storage and recovery projects (\$27.5 million funding from MWD and Calif. DWR). In June 2007 MWD agreed to fund studies to evaluate expanding this storage program.

**D. Chino Desalination Projects (40,000 acre-feet annually by 2020)**

Historically, Colorado River water (relatively high salinity) and “Route 66” agricultural practices have caused areas of the Chino Basin to have high salts that make the water unfit for domestic uses. To correct this problem and to recover this poor quality water, the Chino Basin Optimum Management Plan recommends implementation of groundwater cleanup projects to pump and treat poor quality groundwater to meet drinking water standards. Additionally, the desalination projects of the lower Chino Basin area will protect and enhance the water quality of the Santa Ana River and the downstream use by Orange County. HR 813 (passed the House on October 22, 2007) would provide authorization under the Bureau of Reclamation’s Title XVI program to provide funding for the third Chino desalter and brine line improvements with the SAWPA SARI brine system

recommended in the Southern California Comprehensive Water Reclamation and Reuse Study (USBR, 2003) and the joint MWD/USBR Salinity Management Study (1999). The third phase expansion is projected to cost \$110 million and increase to approximately 40,000 AF.

**E. Stormwater (25,000 acre-feet annual average of new stormwater capture percolation)**

A critical issue facing the coastal plain of Southern California as the region continues to urbanize and hardscape our landscapes will be how to implement both small scale and larger scale projects for stormwater capture to allow percolation into our groundwater basins. IEUA in coordination with the Chino Basin Watermaster, the San Bernardino County Flood Control District and the Chino Basin Water Conservation District has developed an integrated recharge master plan to optimize the capture of stormwater with replenishment of imported water from MWD and our local recycled water to enhance the storage and recovery of water from the Chino Basin. During the past five years, IEUA has funded construction of over \$50 million in improvements on the Groundwater Recharge Basin.

IEUA is also sponsoring innovative small scale, on-site (neighborhood development) storm water management projects to enhance percolation of rainfall to minimize runoff, reduce contamination of rainwater before it percolates into the ground and to cost effectively reduce flood control requirements while helping the cities and county meet regulatory requirements. This innovative program is being funded in partnership with the CALFED Bay-Delta Program, Metropolitan Water District of southern California, and the Southern California Concrete Association.

**III. Climate Change Impacts on California Water Supplies**

In the fall of 2006 IEUA collaborated with RAND on a study of the potential affects of Climate Change on the IEUA and Chino Basin area. This work has been recently completed and a Congressional briefing will held on January 31, 2008 to explain the findings of this report. Climate change will affect water supplies in California, but few water-management agencies in the state have formally included climate change in their water-management plans. RAND researchers have worked with Southern California's Inland Empire Utilities Agency to help it identify vulnerabilities related to climate change in its long-term water plans and to evaluate its most effective options for managing those risks. But in summary the RAND research project highlights the critical need to develop more local supplies in California (e.g., water recycling, local groundwater storage and stormwater replenishment programs, implement excellent water use efficiency/conservation programs) to avoid significant water shortages and economic impacts.

**IV. Future Issues and Need for Federal Assistance**

Southern California does have enormous water problems when you consider the following trends:

- ✓ *The current population is about 18.5 million and will likely double over the 50 years;*
- ✓ *The imported water infrastructure from MWD can optimistically only deliver 2.4 million acre-feet, assuming resolution State Water Project Delta issues and the Colorado River problems are successfully resolved;*
- ✓ *Climate change is expected to impact both amount and timing of future water supplies, increasing the likelihood of shortages during critical times;*
- ✓ *Importing water to southern California requires a large amount of electrical energy, substantially more than the alternative local supplies (recycled water, capturing stormwater, and groundwater recovery of poor quality water);*
- ✓ *The region faces significant shortages unless we develop a local supply strategy.*

The issue for the region as articulated in the MWD Integrated Water Resources Plan adopted in 2004, is to develop a balanced approach to multiple sources of supplies with a clear priority to local resources management and emphasis on less energy intensive uses of water that protect water quality and the wildlife habitats of the region.

Addressing the four questions asked in the letter inviting me to testify.? My response to these questions and suggestions are as follows:

The Committee should continue to examine the opportunities for State and Federal agency partnerships to promote water use efficiency programs recommended in the CALFED Bay-Delta Record of Decision (increase water conservation, water recycling and new local groundwater storage programs to reduce the need for Delta exports consistent with the California Water Plan.

The Committee has developed Views and Estimates in the past few years that strongly supports increased funding for the Bureau of Reclamation's Title XVI Program. For FY 2009 I recommend the Committee support an increase of \$100 million increase in the funding of Title XVI Program expenditures.

*A coordinated approach to regional infrastructure planning for water supply, groundwater management, stormwater, wastewater reuse and recycling needs to be integrated on a watershed and regional scale. Regional leadership in the planning of flood control, wastewater and water facilities is an opportunity that can save billions over the next 5 decades as well as help address the serious challenge facing this nation through climate change. The federal government should be a partner in this process helping both to facilitate redirection of federal programs to support local planning and providing funding for projects that contribute to the nation's goals for water security and reduction of climate*

*change impacts. EPA, Army Corps, US Bureau of Reclamation, the USDA Natural Resources and Conservation Service all have significant activities within the region.*

A historic example of a state/federal partnership was the leadership of this committee in 1996 in drafting the CALEED Bay-Delta legislation that provided the authorization.

I would recommend that your Committee hold additional hearings on these opportunities to develop new regional, state and federal partnerships that address comprehensively watershed divide problems

In closing, thank you for the opportunity to testify. If I can provide any additional information on the current and future water problems facing California, please don't hesitate to contact me.